



US Army Corps
of Engineers®

Engineer Update

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Army leaders get barracks 'preview'

Article by Victoria White
Photo by Jonas Jordan
Savannah District

If you're in the market for a new house, you will most likely tour model homes to see the builder's work and choose your floorplan. It certainly helps to see what you're getting before making such a big investment, because few of us are architects who can make a decision based only on an artist's rendering.

Military officials who decided to invest in new barracks and dormitories two years ago called on Savannah District to design and manage the "Un-accompanied Enlisted Personnel Housing Upgrade Initiative," which sets the future living standards for enlisted people in our armed forces. Until recently, commanders could only wonder what their investment would look like, unless they happened to be proficient in reading blue-prints.

After a barrage of inquiries from all over the world, the district's engineers built a complete mock-up of one of the new apartment-like modules in a warehouse at Hunter Army Airfield, Ga. This gives commanders the opportunity to see exactly how their troops will live in the near future.

The mock-up, completed Dec. 18, is what you would see in a real barracks, right down to the fixtures, ceramic tile in the bath, kitchenette, contemporary furniture, lamps and even the drapes. It will remain in place for commanders to tour until June 1997.

"We had made computer models of the new barracks and dorms, but building this mock-up is really the best way to show people exactly how they will look," explained Tom Brockbank, engineering manager. "This particular type of module will be used in a couple of our first barracks projects. Fort Jackson, S.C., will be one of the first installations in our district to get barracks developed under the new standard. In fact, we should start construction on the first group there by May."

Soon enlisted troops will come "home" from work to larger rooms with private baths, walk-in closets, kitchenettes with microwave ovens, matching draperies and bedspreads, and functional, yet attractive, furniture. Cable television and telephone service are optional, but the wiring will be installed for both.

Those in grades E-5 (sergeant) and above will have private rooms, while those in grades E-4 (specialist four and corporal) and below will reside with only one roommate. Most rooms will have private entrances from exterior balconies or breezeways, and all will have ample storage areas.

Plans also call for a separation of work and living areas in fully landscaped "military suburbs" complete with courtyards, sidewalks and larger parking lots. Headquarters buildings will be separate from the barracks or dormitories.

"We're not just designing barracks and dorms, we're designing communities," said Steven L. Winfrey, head architect on the project. "Every community will be different. Some will be reno-



Paul Johnson (left), Deputy Assistant Secretary of the Army for Installations and Housing, and his Assistant Chief of Staff, Maj. Gen. Frank Miller, admire the barracks mock-up. Tom Brockbank, engineering manager, is their tour guide.

vation of existing buildings, some will be new construction, and some will be a mixture of both, whatever is most economically and structurally sound. We're being really creative on these projects to get rid of those lines and lines of barracks. Landscaping and parks between buildings will make the communities look more like city squares with housing separate from 'industrial' areas."

"We took the criteria presented to us by all military staff agencies," said Brockbank. "They did extensive surveys with enlisted personnel to develop the new standards. The Army started this, then the Air Force decided to get into the program, and now the other services have come on-board. Beginning in fiscal year 1996, all enlisted housing projects will be built under this new standard."

A tour of the mock-up on Feb. 27 by Paul Johnson, Deputy Assistant Secretary of the Army for Installations and Housing, and assorted military commanders revealed that top military echelons are interested in their investment and the quality of life for enlisted troops. Johnson's Assistant Chief of Staff, Maj. Gen. Frank L. Miller, expressed concern that ample parking be included in the enlisted housing communities, at least one space per soldier or airman.

Johnson summed up the distinguished visitors' impression by remarking, "If I were a young soldier and saw this, I think I'd reenlist!"

Do those who will live in the new barracks and dormitories share that view? When a few soldiers

from Company B, 159th Aviation Regiment happened by, they were invited to take a look. Ranging in rank from E-4 to E-7, they were amazed by what the future holds for barracks living.

"If we get to live in barracks as nice as this, I just may reenlist," said Sgt. John Mursch. "This is really nice. Are we really going to get barracks like this?"

The soldiers were so excited, two rushed back to their company headquarters across the street and returned with their commander to show him the mock-up.

"This is what the Army needs to do for soldiers," said Sgt. 1st Class Dennis L. Little. "It's about time we offered good housing for our single troops. This barracks is like a little efficiency apartment and it's really nice. I think soldiers will take better care of something nice like this."

There are four different barracks modules available for the Army, designed to fit both existing buildings and new construction projects. The Air Force, Navy and Marines are developing similar floor plans based on the new standards. Construction schedules will vary from installation to installation throughout the U.S.

The need for renovating barracks and dormitories, coupled with military leaders' focus on quality of life for all the armed forces, will turn these plans into reality during the next few years. Single military people, 43 percent of the armed forces, will begin enjoying a lifestyle similar to their married counterparts in the near future.

Historic gateway receives facelift

By Diane Lake
Seattle District
Photo by F. T. Eyre
HQUSACE

It stands like a sentinel, quietly watching over its charges day and night. Mighty, yet serene, it has been a gateway into history since the 1870s.

The McClellan Gate, a stone monument of large blocks and veneer panels of fine-grained red sandstone, looms over rows of white crosses and granite and marble markers at Arlington National Cemetery in Virginia.

In response to an HQUSACE competition for the McClellan Gate restoration, Seattle District submitted a proposal and was selected to do the project management, design and construction oversight. The late Bob Daniel was the district's original project manager. He worked closely with the district's Technical Center of Expertise for Preservation of Historic Structures and Buildings to complete the project management plan and design.

Daniel and Horace Foxall, the district's historic architect, envisioned

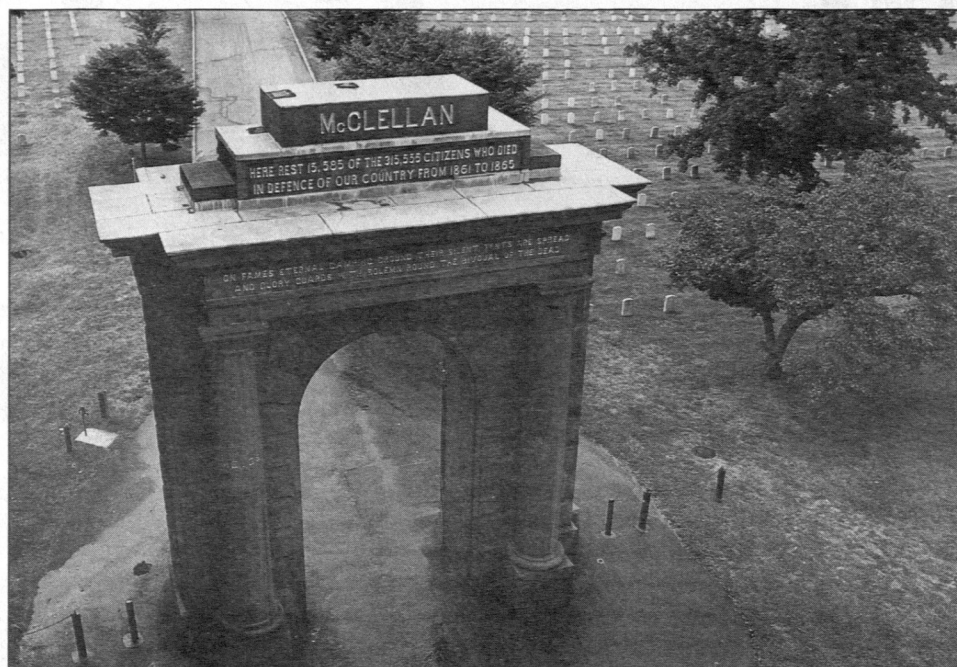
the project as a cooperative effort by a diverse team of federal agencies and private contractors. The center of expertise completed the design with Arlington National Cemetery's active participation.

Foxall is working to restore the gate to its original design. The cemetery, 200 acres of the Robert E. Lee family property, was ceded to the government by Lee's eldest son, Curtis, in 1864. The gate, the original entrance to the cemetery, was named in honor of Gen. George McClellan, commander of the Army of the Potomac during the Civil War.

The cemetery's old amphitheater, built in 1873 to commemorate Union soldiers who died in the Civil War, is also scheduled for repairs this year.

"I visited the McClellan Gate in September to analyze its restoration work," Foxall said. "The project became an investigative search for the right materials and the best way to keep the gate as close as possible to its original design."

Working with Joseph Bunton, project engineer of Arlington Cemetery, Foxall developed ideas that saved money and preserved the structure's historic integrity.



The McClellan Gate which stands guard over rows of white crosses in Arlington National Cemetery is being renovated.

The work request had called for replacing 66 seneca sandstone panels which were crumbling, but Foxhall suggested repairing the original stones, saving about \$100,000.

Instead of replacing the original copper roof with a contemporary roof, Foxall wanted to go back to a copper roof, keeping the historic design and gaining longer life and reduced long-term maintenance.

It was thought the gate foundation needed underpinning reinforcement, but Foxhall called for a geotechnical report which determined

reinforcement wasn't needed, saving about \$45,000.

The original maps of the gate showed that it had a stone perimeter wall. Foxall suggested building a partial wall on each side of the present gate to retain this design. Enough original perimeter stones were found to do this.

Construction started this month and will take six months. The National Park Service's Williamsport Preservation Training Center in Maryland will provide on-site construction quality assurance support.

Recalling Dads, heroes on Memorial Day

By Bob Faletti
Little Rock District

Memorial Day always reminds me of heroes and dads. When I was growing up in the early 1960s, my Dad was a senior NCO in the Army. He had several rows of brightly-colored cloth on his dress uniform, and a silver rifle on a blue background with a wreath around it.

I knew he had served in World War II and Korea, and I often asked him if that meant he was a hero. His answer was always the same. "No, they just mean I was doing my job. Heroes are in cemeteries."

My dad was a little different from the other kid's dads. For one thing, he was the unit first sergeant. Another thing that made him different was that he was one of the very few single parents in the Army back then.

He raised my two sisters (one older and one younger) and me to know right from wrong and, above all else, that if we did wrong it affected his career.

He taught me how to safely shoot a rifle and a pistol. He taught me how to cook. He said if you knew how to cook, you'd never starve to death and could tell a good restaurant from a bad one. He always said the real good ones had several pickup trucks parked out front.

Soldiers weren't paid much back then, and he

taught me how to save money and stretch a limited grocery budget from one payday to the next. We didn't have coupons back then, but I learned how to pick out a good chuck roast and make three delicious, yet different, meals out of it.

Dad also made it clear that of all the worldly possessions I had or would ever get, I had only one thing that was of any value. My name. He taught me that if I said I was going to do something, that I should do it, no matter what, and to do it to the best of my ability. I don't think I ever failed him in that regard.

I also remember one Memorial Day weekend when Dad said we were going to a parade and listen to some general give a speech. I was a teenager, and so I argued that we should go to a picnic like we did the year before when we lived in Arizona. Dad reminded me who was in charge, but it wasn't in an argumentative way. He said that sometimes we don't get to do what we want to do because we have to do what is right instead.

He went on to explain that those the general would talk about weren't lucky enough to be around, and so it was up to us to hear their words of praise. He said it was the least we could do for some real heroes.

Time went by. I graduated from high school and joined the Army. Dad gave me some advice before I joined. He said to learn a skill in case I decided I didn't want to make a career of the Army.

I became an infantry officer. While I was in training, Dad was assigned to Vietnam, his third war. I asked him if he could have gotten out of the assignment. He said no, it was just part of his job and that he would retire when he got back.

A little more than a year later, I was a first lieutenant in Vietnam when I got word that Dad had been hospitalized with a ruptured ulcer. I flew home on emergency leave and got to visit him before he passed away, six months before retirement.

As his only son, I was exempt from serving in a war-zone without volunteering. But I stayed on active duty for another four years and served one more tour in Vietnam, earning a few pieces of colored cloth and a silver rifle on a blue background with a wreath around it, a Combat Infantryman's Badge just like Dad's.

After I got out of the Army, I stayed with the Reserve program. I also was blessed with two beautiful daughters. When they were young and saw me in my dress uniform, they asked me if the ribbons I wore meant I was a hero. I always told them that they just meant that I was doing my job, that heroes are in cemeteries.

As we approach this coming Memorial Day weekend, take time to teach a youngster (even a teenager) the importance of our nation's heroes. Maybe you'll be lucky enough to hear a speaker say a few words of praise.

Thanks, Dad. You're still my hero.

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Jimmy Bates 'graduates' after 37 years

Article by Candy Walters
Photo by F.T. Eyre
HQUSACE

There wasn't a diploma, but there was plenty of pomp, circumstance and memories at Jimmy Bates' "graduation."

Officially, it was a retirement after 37 years with the Corps of Engineers, but the former Deputy Director of Civil Works didn't see it as retiring, choosing instead to view April 1 as "a graduation to a new adventure."

"But I don't have any planned adventures" at this point, he said, except maybe sleeping in to 5:30 a.m. instead of starting his day at the normal 4:20 a.m.

Bates, often referred to as the headquarters in-house chaplain, said he knows that what God has started in him is not complete. "He is not done with me yet," Bates said. "I'm ready for a challenge."

Always being ready to accept a new challenge or embark on a new adventure has been a hallmark of Bates' career, even though he admits he didn't know all the possibilities in the Corps when he began working at Nashville District during summers while putting himself through college.

After college Bates served in the Army and worked for a private firm in Lexington, Ky., where he specialized in highway, racetrack and airport design. His Army Reserve unit mobilized during the Berlin Crisis and after returning from duty Bates took a job with Nashville District in 1963. "I've never been tempted at all" to leave the Corps, Bates said.

The reason? Challenges and opportunities.

"A career with the Department of Defense is different now than it used to be," Bates said. "You can't recruit people and tell them they'll have a 30-year career. However, we in the Corps *do* have a lot to offer — challenging opportunities that you don't find in the private sector."

"When I joined the Corps, I had no idea there were opportunities to work overseas," Bates said. "However, I've had opportunities, exciting times and exciting challenges."

"My career has been professionally rewarding," Bates said. "I've worked in planning, design, construction, all the facets, working on projects that have benefited the American people. It's been great being a part of it."

"I've enjoyed working with the local community, developing studies and plans for various projects," Bates said. "I've had fantastic opportunities to meet people who love their country and homes and communities, and have hopes and dreams, and I've worked to make them come true. It's been gratifying."

Also gratifying, he said, has been the chance to work with Corps people just starting their careers.

"One of the most satisfying aspects has been the opportunity to identify talent and develop and position that talent to give them more challenging assignments and make a contribution to the Corps," Bates said. "I've seen one selected for Senior Executive Service. I've helped put some people in leadership, policy and planning positions and had the opportunity to chair a Leadership Education and Development team that went all across the Corps. It was a leadership training program through which I met a lot of young talent. That's one area where I have no concern about the future. We have the technical capability and talent. We just need leadership to mold and develop it."

"Leadership is at the core," Bates said. "You don't have to be a supervisor to be a leader. We tend to focus leadership training on management,



Jimmy Bates discusses issues with Michele Denham, now in Los Angeles District, during one of their mentoring sessions.

but it takes folks with communication and people skills to be real leaders. Leadership competencies are more important than ever."

Bates said that is one change he's seen during his Corps career. Another has been in how the Corps does business under a tightening budget.

"In the earlier days, Congress provided the Corps with money to do many projects, almost an endless supply," Bates said. "We've seen, and rightly so, a tightening of the budget and a cultural change in the Corps."

"The 1986 Water Resources Development Act called for cost sharing, not only for project construction but also for feasibility studies," Bates said. "That's been a real change because these studies used to be fully federally funded. It's caused the Corps to change its way of doing business. We're becoming more efficient, doing projects within budget and on time, as we should."

"These are challenging and exciting times," Bates said. "This Corps of Engineers is a national asset. There's a lot of work the nation needs us to do, and there's so much capability here. The Corps serves us well."

Bates has seen that work at all Corps levels. He began his career in Nashville District as assistant chief of the Engineering District, and chief of Planning Division. At Ohio River Division (ORD) he was chief of Planning Division. At headquarters he has been chief of Eastern Planning Management Branch and chief of Policy and Planning Division for Civil Works. As Deputy Director for Civil Works, Bates managed, directed and provided leadership for a civil works program with a budget of about \$3.5 billion for water and related land resources. Through these positions, Bates gained a unique perspective on the Corps and its abilities.

The 35 years he spent in the Reserves, where he retired as a major general in 1990, enhanced that perspective.

"My military service has been important to me and has given me a deeper feeling for the Corps,"

Bates said. "I found it to be an asset and it is still reaping rewards for me. I've had generals take me into their confidence, share problems with me, bounce things off me. There's been a sense of camaraderie."

And there's been humor as well. "There was a time at ORD when, in my Reserve role, I outranked three or four commanders," Bates said. "Some of them took some ribbing, but they were all encouraging and helped me."

Bates is convinced that one former commander got even.

"When I was in Nashville, my district engineer was Col. Henry J. Hatch, now retired Lt. Gen. Hatch. We were on the same nomination list to the Senate for our first and second stars. But each time, because I was in the Reserves and he was on an order of merit list, I got promoted before him. Each time I sent a note congratulating him. On the second star he sent one back that said 'Doggone you, Bates. You did it again. One day I'll get even.'"

"A few years later, he became Chief of Engineers," Bates said. "I was at ORD and he wanted me to come here. I didn't want to because I was having great success there with a fantastic staff. But I *did* come here, and I've been grateful to him. I look back on it with great joy, so I have to thank General Hatch for getting even."

But that's about all the looking back the 62-year-old Bates has planned. Instead, he's focused on being with his family, fulfilling his promise to quit working while still young enough to spend time with them.

"I'm mentally prepared for change," Bates said. "I have fond memories of experiences and of the beautiful people who have crossed my path. These are my treasures."

"I'm very blessed to be healthy and happy, and I still have a lot of energy," Bates said. "I know the opportunities will be there."

Scientist joins elite group

By Marie Darling
CRREL

DoD has many elite groups —the SEALs, Special Forces, and Combat Search and Rescue, to name a few.

How 'bout the Magnificent 37?

Dr. Devinder S. Sodhi, a research hydraulic engineer with the Ice Engineering Research Division of the Cold Regions Research and Engineering Laboratory (CRREL), was recently promoted to senior research scientist. That's equal to a GS-16 in the Federal Civil Service System.

Currently, only 37 individuals in the Department of Army have attained this status, and they are sometimes called the Magnificent 37.

Sodhi taught for several years at Memorial University of Newfoundland. He joined CRREL in September 1978 on a temporary appointment as a research hydraulic engineer at CRREL's Ice Engineering Facility. At the time, this was a new facility which gave Sodhi plenty of opportunity to

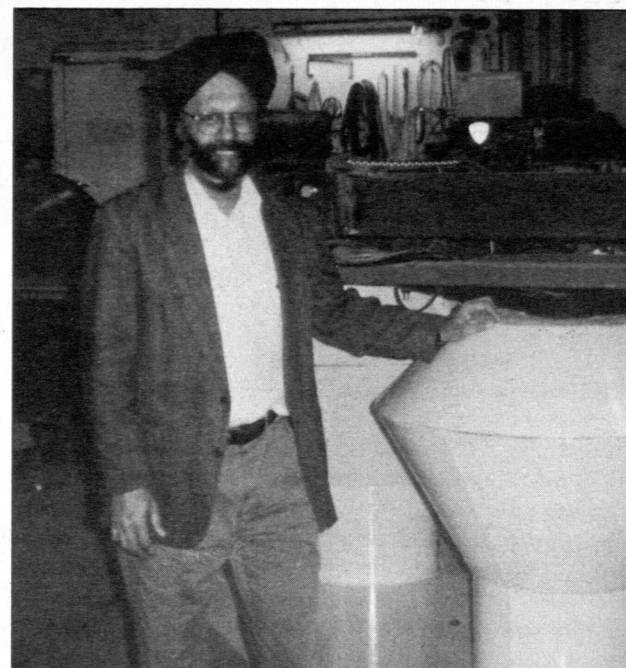
study the forces generated by ice moving against structures.

Soon he became a permanent employee, and has been advancing the international understanding of ice/structure interaction and ice mechanics ever since.

The recruiting process for a new senior research scientist at CRREL began in early 1995, when Sodhi applied for the position. After a nationwide recruiting effort in CRREL and at higher Army levels, the final selection of Sodhi was made at DA Headquarters in Washington, D.C.

Sodhi is a genuinely humble man who wastes few words on himself. When asked what this promotion means to him, he said, "I am both elated and happy to be selected for this promotion, but I never thought I would get it, as there are very talented people out there!"

Sodhi will continue his research at CRREL on the forces that develop when ice interacts with structures such as piers, bridges, mooring facilities and offshore platforms.



Dr. Devinder Sodhi poses with a model of a multi-legged structure with conical attachments at the water-line which reduce ice forces. (Photo courtesy of CRREL)

Program provides students 'starting block'

Article by Jennifer Patrick
Photo by Laurie Driver
Little Rock District

In life, just like in track and field, your starting block is vitally important. It puts you in a position for success; what you do from there is your choice.

That's the idea behind the Association of Black Engineers in Arkansas' (ABEA) Starting Block Program.

"We started the program because we wanted to give students interested in engineering someone to talk to and to get advice from. We wanted to start them out on the right career track and be there to help them," said Exa Hartman of the district's Mechanical Electrical Section. Hartman is ABEA treasurer and chairperson of the Starting Block Program.

When ABEA formed in 1989, it was initially a professional organization where black engineers could meet and network. About 1990, the ABEA's focus changed from networking to student mentoring and education.

"We realized that the best way to increase minority representation in the field of engineering, to promote engineering and, in turn, to increase participation in the organization was by helping students," Hartman said. "We just wanted to give something back to the community."

That's when the Starting Block Program developed.

"Starting Block is a multi-phased program open to 10th- through 12th-grade students," said ABEA Vice President Rod Gaines of the Geotechnical Branch. "Phase one includes informational seminars on careers in engineering, university tours, company tours, summer positions and scholarships. The second phase includes interviewing, resume writing and scholarship application workshops, as well as health seminars."

ABEA plans a Starting Block ac-

tivity each month except during summer.

Student participation in Starting Block is voluntary. ABEA reaches students by sending information packets to every high school in the state. Interested students sign up and are contacted by an ABEA member. They receive a schedule of the monthly activities and are assigned an ABEA member as a mentor.

Each ABEA member is responsible for contacting or tracking between six and 10 students during the school year.

"We have students from all backgrounds, and we encourage that," said Shirley Bruce, chief of Architectural Engineering Contracts Section and an ABEA charter member. "We don't want the program to be just for students who want to be engineers. It's also for those who know nothing about engineering, but who want to know more."

In addition to their mentoring duties, ABEA members also plan, schedule and run each monthly Starting Block activity in their spare time. Whether it's a day trip to the University of Arkansas at Fayetteville or a morning seminar, ABEA members are there to make sure it goes smoothly.

"We try to make things as easy as possible for the students while taking away all the excuses they could have for not attending," Hartman said. "The activities are free. The dress is casual. We hold several during the year. All they have to do is show up."

Area businesses have given good support to the projects. Several businesses have donated college scholarships for Starting Block students. Other businesses, like the Little Rock District, have donated summer internship positions.

Colleges, universities and organi-

zations that employ engineers also show their support for Starting Block by participating in career fairs.

"We had 20 displays at the informational seminar in February," Gaines said. "This is an excellent opportunity for both the students and the exhibitors. It gives the students an opportunity to talk face-to-face with representatives from colleges and businesses and to get feedback on career opportunities. The exhibitors get to meet individuals who may become their future college students and future employees."

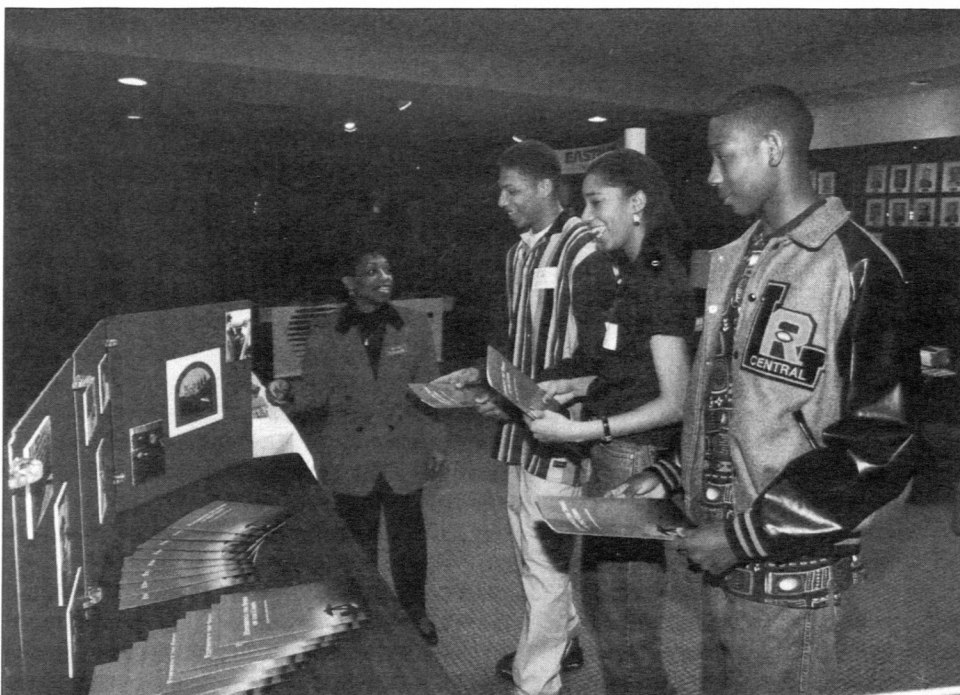
Besides helping high school students, ABEA members also are involved in the Elementary Math and Science Achievement Program. ABEA adopts an area elementary school to work with during the school year.

"This year we've donated more than \$500 in computer software to our adopted school," Gaines said. "We also spend some of our time doing volunteer work in the school teaching the students about engineering."

When the Starting Block Program began, it was funded purely by the dues of the membership and donations from area businesses. For the past three years, the program has been funded by a grant from the Winthrop Rockefeller Foundation.

While the money keeps the activities funded, it's the drive and the determination of the 20 ABEA members that made Starting Block a reality.

"We have to sacrifice some of our time, but it's for the kids," Bruce said. "By reaching out and helping them, we have a positive effect on the future. Whether or not they go on to become engineers is not that important. What is important is that they've had people to look up to and to help them. That's something we all could have used when we started out."



Ann Sims, Equal Employment Opportunity Office, talks with students about the Corps of Engineers during a Starting Block event.

*Special Insert***1996****Design and
Environmental
Awards****25 Corps projects
win competition**

Winners of the 1996 Chief of Engineers Design and Environmental Awards Program were selected March 11-12 at Corps headquarters in Washington, D.C. Twenty-five Corps projects were selected for awards by juries of distinguished professionals. A total of 67 Corps projects were entered.

The competition has two categories, civil works and military programs. Each category is judged by an interdisciplinary jury of five design professionals.

The Chief of Engineers Design and Environmental Awards Program presents three types of honors. The Award of Excellence is the highest. Only two Awards of Excellence may be given, one for a military programs project and one for a civil works project. It can be given only by a unani-

mous decision of the jury, which may decide that no project in a category deserves the award. This year, no Award of Excellence was given in the military programs category.

Honor Awards are given to projects which demonstrate excellence in multiple design disciplines. Merit Awards can be given either for individual or multiple disciplines.

The Chief of Engineers Design and Environmental Awards Program began in 1965 to recognize and promote excellence in design and environmental achievement by the Corps and its professional contractors. It is part of the Federal Design Improvement Program and is held every other year to coincide with the Secretary of Defense Design Awards Program.

Civil Programs

Award of Excellence: *Flood Control Project, Rochester, Minn.*

"Money Magazine" voted Rochester one of the top places to live in the U.S. three years in a row, but the town is no stranger to flooding. Nine miles of channel improvements on the South Fork Zumbro River now protect Rochester, which had more than 20 major floods since its inception in the mid-1800s.

The project combined upper watershed runoff retention, streambank erosion protection, channel improvements such as grade control structures, levees and non-structural improvements. It was designated one of the Minnesota Society of Professional Engineers' 1996 Seven Wonders of Engineering.

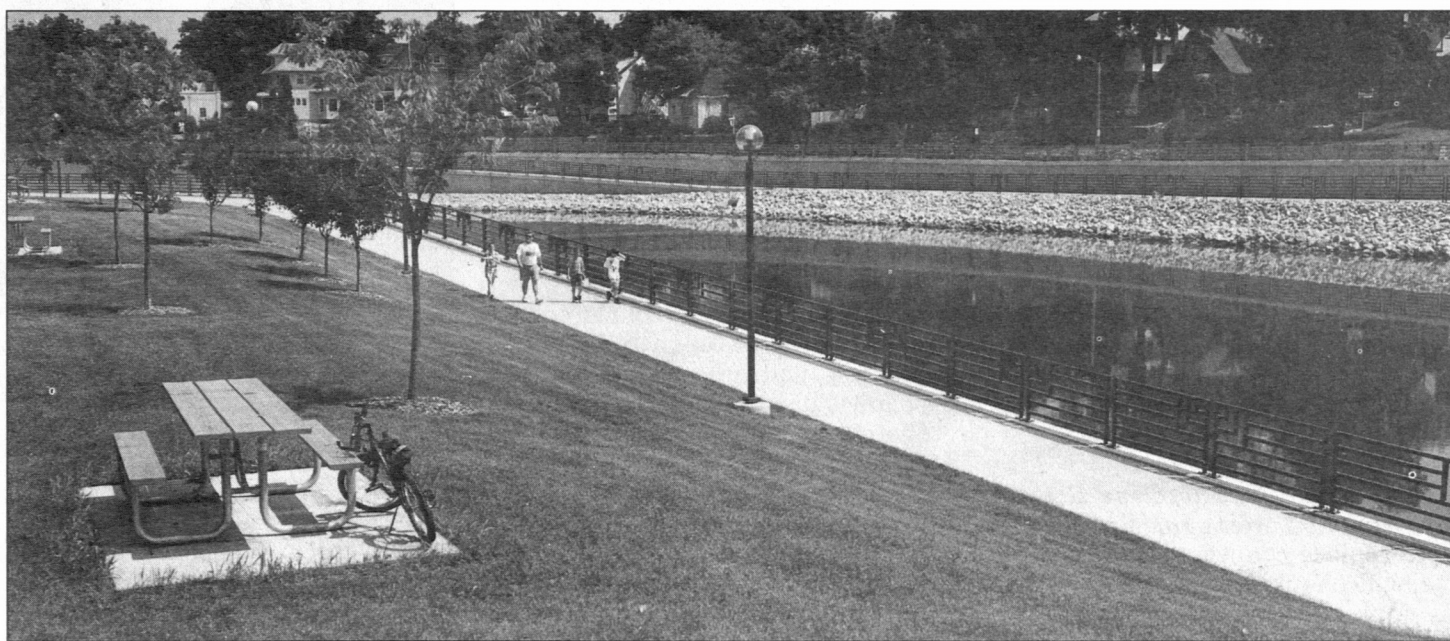
Jury comment: *This project deserves the Corps' highest honors. The Rochester Flood Control Project provides an excellent model of how partnering and an emphasis on sustainable design can lead to integrating recreational planning, aesthetic design and human sensitivity with high quality, cost-effective flood control in an urban environment.*

Honor Award: *Lake Ponchartrain Hurricane Protection Floodwall, Williams Boulevard, Kenner, La.*

The project was redesigned during construction to a floodgate and cantilever floodwall. This led to a less expensive, attractive landscaping project.

It also greatly reduced traffic congestion and community disruption during construction. Lights were added to the gate columns for appearance and pedestrian safety.

Jury comment: *The project demonstrates that engineering function, sensitivity to aesthetics and concern for cost-effectiveness can be combined in a flood control project.*



Award of Excellence: Flood Control Project, Rochester, Minn.

Unacceptable traffic congestion and community disruption were avoided during construction, and strong graphics combined with attractive lighting and landscaping provide a creative design.

Honor Award: *Coast Guard Gretna Navigation Aid Tower, Gretna, La.*

This replacement steel navigation tower atop the Mississippi River levee is a single-pedestal supported structure. The steel construction and three-eighths-inch thick bullet-proof glass provides protection from vandals. It will withstand hurricane winds, and is recyclable.

Jury comment: *This steel navigation aid tower is a clean, modern structure that meets the Coast Guard's requirements of safety and security. It will withstand most com-*



Honor Award: Brush Creek Flood Control Project, Kansas City, Mo.

Continued on page B

Continued from page A

mon vandalism and hurricanes. It may deserve replication because of its simplicity and nautical appearance.

Honor award: Brush Creek Flood Control Project, Kansas City, Mo.

Development along Kansas City's Brush Creek paced the southward expansion of the urban area, and a disastrous flood in 1977 claimed 12 lives and caused \$66 million in damages.

The Water Resources Development Act of 1986 authorized a plan to deepen the channel by five feet, replace four bridges and install a flood warning system. This project transformed a dry channel into a landscaped park corridor, including two in-channel dams to create shallow pools and variable channel width with walkways.

Jury comment: The utilitarian function for flood control and public safety has been transformed into a project of civic pride and responsibility. The design captures water as a sculptural element and creates a pleasing pedestrian environment.

Honor award: Romano L. Mazzoli Belvedere Connector, Louisville, Ky.

This project is the first envisioned by a master plan to re-establish Louisville's river heritage. It interfaces with a municipal plaza (Belvedere), federal and state highways, the barge industry sailing line, and a wharf which moors excursion vessels. This "pedestrian connector" provides safe movement along the river. Handicapped accessibility is incorporated in the project.

Jury comment: The project is an outstanding solution to the need for a pedestrian connection from the heart of Louisville to the waterfront on the Ohio River. The connector is attractive, functional and provides a lot of value. It also includes pedestrian amenities at the waterfront level.

Honor award: Shoreline Releaf Program, Fort Worth District, Texas.

To replace countless trees lost to major floods in Fort Worth District, an unprecedented tree planting program was accomplished with the help of volunteers. They planted flood-tolerant trees, while the federal government provided 7,000 volunteer patches, purchased some trees and provided administration.

Jury comment: This project shows how public/private venturing can be accomplished in coming years. The project's educational benefits help strengthen the next generation's understanding of land stewardship.

Honor award: The Jadwin Building, Galveston, Texas.

The Jadwin Building, permanent home of Galveston District, is built on a former disposal area. It will withstand hurricane winds and tidal surges, high temperatures and humidity. It is built with a poured-in-place concrete frame supported with step-tapered friction pilings that go 120 feet deep.

The interior is an open space design to allow changes in division



Honor Award: The Jadwin Building, Corps of Engineers, Galveston, Texas.

staff size without restructuring interior walls. Windows are tempered insulating glass one inch thick.

Jury comment: This impressive, state-of-the-art building, 93,000 square feet, is the first permanent home for Galveston District. Sitting on the tip of Galveston Island, it provides the 400 occupants a work environment featuring window vistas overlooking the entrance to the ship channels and the Gulf of Mexico.

Merit award: Floodplain Management Assessment for the Upper Mississippi and Lower Missouri Rivers.

After the catastrophic Midwest Flood of 1993, Congress authorized the Floodplain Management Assessment study, completed in June 1995. The assessment area covered 3,500 river miles in seven states.

The assessment included two innovations — developing and applying a systematic hydraulic model to analyze and compare alternatives; and developing and applying a comparative evaluation framework that examined a variety of non-structural and structural solutions.

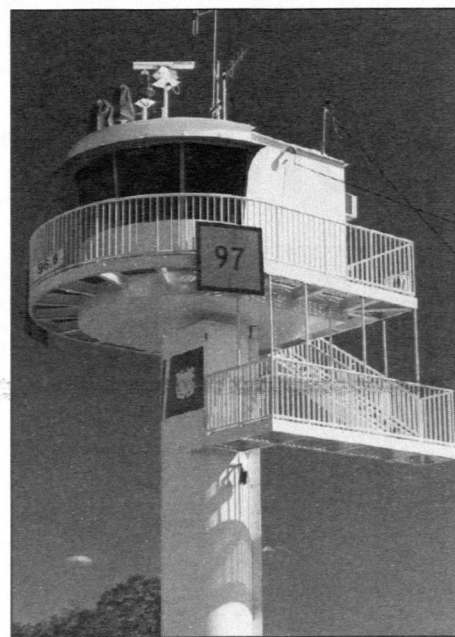
Jury comment: Comparative assessments of both structural and non-structural solutions will serve as valuable products and examples for the future.

Merit award: New Central Control Station, Lock and Dam No. 4 Major Rehabilitation, Mississippi River, Alma, Wis.

The new central control station at Lock and Dam No. 4 is part of a major rehabilitation program of replacing the control stations at Locks and Dams 2 through 10. The project presented a unique design challenge. It had to:

- Preserve historic significance.
- Maintain the town's character.
- Place a building on the lockwall with no adverse effect.
- Incorporate all functional requirements into one building on a restrictive site.

The new station combined the needs of a modern navigation facil-



Honor Award: Coast Guard Gretna Navigation Aid Tower, Gretna, La.

ity with features sensitive to a historic site and the town where it's located.

Jury comment: The project represents a cost-effective solution to providing a modern navigational station while respecting the historic site. The building was functional, attractive and delivered at a reasonable cost.

Merit award: McNary Juvenile Fish Facility, McNary Lock and Dam, Umatilla, Ore.

The McNary Juvenile Fish Facility is a state-of-the-art fish bypass, and holding and transportation facility. Its primary mission is improving the survival of juvenile fish migrating downstream through McNary Lock and Dam.

Although the facility has an industrial appearance, protection of the migrating fish and absolute minimization of stress and injury are the fundamental shapers of this design.

Jury comment: The close coordination and teamwork among the Corps, many fishery agencies, the contractor and the Northwest Indian tribes produced a state-of-the-art fa-

cility using pioneering concepts. Innovative designs were developed to protect migrating fish, such as butt-welded black plastic pipe to minimize seams. Value engineering during the design process saved more than \$2,000,000.

Merit award: Santa Ana River Greenbelt Channel, Orange County, Calif.

The Greenbelt project is an integral part of the larger Santa Ana River Mainstem Project. It provides flood protection to the lower Santa Ana River Basin between the Santa Ana Freeway and 17th Street.

The designers transformed part of the project into an innovative recreation area. By using topsoil and grass instead of concrete channel, and covering rip-rap with topsoil and grass, it is an aesthetic environment offering opportunities for bicycling, jogging, golfing and horseback-riding.

Jury comment: This project has elevated the functional aspects at flood control to an open space element of the Santa Ana River Mainstem Project. Its innovative approach to recapturing public green space provides an excellent model for future urban infill projects.

Merit award: Prairie Restoration Program, Fort Worth District, Texas.

In keeping with its mission of environmental stewardship, protection, and restoration, the Corps has joined with concerned organizations to restore native prairies at Corps lakes in Texas. A key aspect of this restoration program has been reintroducing native grasses and Texas wildflowers.

Because these grasses are so scarce, the hard-to-find plants were collected from unmowed county roadsides or other relic sites.

Jury comment: This is a very cost-effective and aesthetically pleasing project.

Merit award: Beaver Dam Cutoff Wall Rehabilitation, Beaver Lake, Carroll County, Ark.

Beaver Dam is a concrete gravity structure with a main earth embankment and three auxiliary saddle dikes.

Dike 1 is an earth embankment founded in an area with fault zones. Water has seeped through this zone and underneath Dike 1 since its construction in 1966.

Monitoring is done with an automated large-scale piezometer system. It contributed significantly to developing automated equipment used today throughout the world.

To stop seepage, a continuous concrete pile cutoff wall was completed in Dec. 1994. It is believed to be the deepest (185 feet) and the largest (34-inch diameter) secant piles drilled into rock.

Jury comment: For almost 30 years, seepage occurred at Dike No. 1. Innovative design, drilling procedures and drill rig succeeded where other methods failed. The project solved the seepage and provided additional recreation facilities and access to the lake.

Military Programs

Honor award: *Hastings Groundwater Remediation, Hastings, Neb.*

Because of the limitations of traditional groundwater remediation such as "pump-and-treat," the project team considered applying new technology. The team (engineers, scientists, and drilling and well experts) combined their knowledge and ingenuity to design a system using state-of-the-art horizontal well technology and air sparging to clean up groundwater.

Jury comment: *This project presents an innovative, successful solution to chemical groundwater contamination. Implementing this project saved millions of gallons of water in the aquifer. The jury felt this innovation could well have a major impact on future decontamination efforts.*

Honor award: *Borden Pavilion, Walter Reed Army Medical Center, Washington, D.C.*

To preserve the site's historic appearance, the designers followed the scale and adapted the materials of the 1908 Georgian Revival buildings. Brick facades are laid in Flemish bond. Cast stone decorative elements refer to the limestone details of the 1908 building. A leaded copper roof matches the material and pitch of neighboring buildings. The four-level facade follows the traditional base-middle-top composition.

Jury comment: *This building is an excellent example of architecture making an important contribution to a place. The restrained contemporary transformation of the neo-Georgian facade is remarkable in its detailing. The way it takes its design cues from the existing Walter Reed Master Plan is well done.*

Honor award: *Youth Activity Center, Fort Richardson, Alaska.*

The Youth Activity Center is situated in an aging housing complex to

be accessible to all who live there. The building was divided into wings to fit a residential scale, reinforced with unique fenestration patterns and chimney elements. Specific attention was paid to lighting to create an inviting ambiance since Alaska's winters are dark. Oversized windows take advantage of minimal sunlight and radiate light into the neighborhood as a beacon to children. The plaza, parking and drop-off areas have a southern exposure to facilitate snow-melt and removal. Building orientation protects approaching users from strong north winds.

Jury comment: *This building responds to a number of issues such as climate, energy use, budget, site and the partnering program, while also being expressive. Site furnishings and paving patterns support the expression of home and play. It is a well-executed, economical and witty design.*

Honor award: *Navy and Marine Reserve Center, Fort Lewis, Wash.*



Merit Award: *Yano Multipurpose Range Complex, Fort Knox, Ky.*

This project places Navy and Marine reserve construction battalions together, creating a joint reserve center. The two reserve units operate with year-round occupancy of a small active-duty staff and intense weekend use by reserve units. The 62,000 square-foot center resolves its dual nature with separate administration space, storage and maintenance facilities for each unit, and joint-use rooms.

Jury comment: *A complicated design problem solved skillfully. The complex functions well for both Navy and Marine reserve units. Each major function is given appropriate structure and form. The materials are economical and assembled to give the building a crisp, efficient and technically acute appearance.*

Honor award: *U.S. Army Special Operations Command Headquarters Building, Fort Bragg, N.C.*

The Special Operations Command Headquarters Building is the "corporate headquarters" for the Special Forces Command. The building is three stories, plus a basement, with an area of 157,254 square feet. Its form is two blocks of flexible office space linked by a linear lobby which functions as an interior circulation area for 800 employees. The sculptural quality of the glazed lobby, which rises one story above the

roofline, expresses visually the organization of the building.

Jury comment: *A skillful, well-organized design. The plan is efficient and the building materials were carefully chosen. The subtle handling of the facade produces a dignified, articulate representation of this command.*

Merit award: *Command Post, PDI/TCC, Dover Air Force Base, Del.*

The command post is the operations center for military air traffic between Dover Air Force Base, Europe, Africa and the Middle East. Site constraints dictated the building form. The single-story structure is triangular with a metal-clad roof rising from the earth-line at a constant pitch. The volume created as the roof climbs allows a mezzanine which contains the command center. The exterior, walls and roof are poured-in-place concrete to resist radiation. Steep earth berms and reinforced concrete bollards further protect the structure.

Jury comment: *What might have been a dull, severe building is a powerful sculptural form expressing the user's ability to accomplish its mission under adverse circumstances. Despite the requirement that there be no windows and the restricted site, the building is attractive.*

Continued on page D



Honor Award: Borden Pavilion, Walter Reed Army Medical Center, Washington, D.C.



Honor Award: Special Operations Command Headquarters, Fort Bragg, N.C.

Military Programs

Continued from page C

Merit award: Yano Multipurpose Range Complex, Fort Knox, Ky.

The School of Armor at Fort Knox, Ky., did not have a range to support live-fire combined tank, Bradley and helicopter operations. The challenge was to create a facility to withstand 70-ton tanks maneuvering through a twisting course at speeds up to 60 miles per hour while firing 120mm shells, 24 hours a day, 300 days a year, with minimum maintenance.

Jury comment: This enormous site engineering project presents targets and terrain to tankers that they would meet in combat. Site improvement included, to the extent practical, preservation of vegetation, existing cemeteries and wildlife.

Merit award: Addition & Modernization of Leilehua Golf Course Clubhouse, Honolulu, Hawaii.

The program called for renovating an existing golf course clubhouse which was inadequate to support the ever-increasing golfing population. Except for retaining the masonry shell of the pro shop, the dining and kitchen facilities were demolished to make way for a column-free dining room and to install cooking, dishwashing and refrigeration equipment.

Jury comment: After renovation, this building fits with the beauty of the golf course and with Hawaiian architecture.

Merit award: John J. Sparkman Center for Missile Excellence, Redstone Arsenal, Ala.

The John J. Sparkman Center is the headquarters of the U.S. Army Missile Command. There were several months of partnering and interviews with the command to agree on the design. The designs were separated into 17 divisions and submitted using the fast-track method. On-site

conferences among the customer, contractor, architect-engineer (A/E) and the Corps were completed within 21 days after each submittal. Under normal conditions a design of this nature would take an A/E about 24 months to complete. Both design and construction were finished in 22 months.

Jury comment: The design creates a corridor of internal open space with landscaped seating areas; clearly identifiable building entrances, effective pedestrian movement through the parking lots, and safe, efficient traffic patterns and fitness trails around the perimeter. The command building stands out as the focus of the cluster.

Merit award: Military Freefall Wind Tunnel Simulator, JFK Special Warfare Center and School, Fort Bragg, N.C.

A closed-circuit annular wind tunnel was the most efficient design requiring the least fan-motor horsepower and integrating wind return into the building structure. The poured concrete structure was built in an octagonal shape to simplify formwork. The fan design and wind-stream aerodynamics for maximum efficiency and minimum air turbulence determined the final shape and size of the facility.

Jury comment: This project is a "first-of-its-kind" and exceeded its design criteria. It can support eight participants at a time rather than the two called for in the design. The cost of construction was more than covered by savings from previous training procedures.

Merit award: Multipurpose Administration Facility, March Air Force Base, Calif.

The building had to accommodate the Air Force Audit Agency, the Office of Special Investigation District

Special Insert

1996 Design and Environmental Awards

Headquarters, a USAF recruiting squadron and information management. The design challenge was to create a visually cohesive facility that introduced visitors to the architectural theme as they enter the main gate, yet allow the building occupants to operate independently.

The facility is organized in a two-building form, wrapped around a contemporary interpretation of a narrow European village streetscape that connects front door to parking.

Jury comment: An inviting design is created by using space, architecture and site. The project has an excellent sense of human scale and provides a retreat from the surrounding setting. The use of regional design elements and materials tie into the surrounding area and provide context.

Merit award: Nellis Federal Hospital, Nellis Air Force Base, Nev.

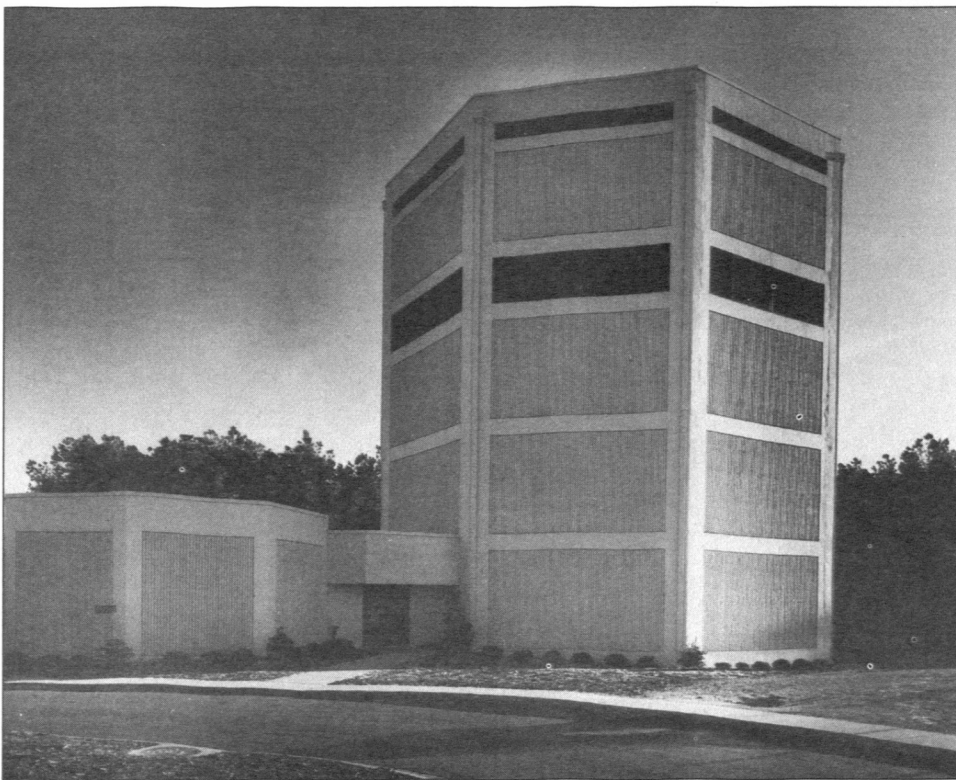
This is the first joint-venture medical facility between the Air Force and the Veterans Administration. The design's unique features are:

— Clinic, nursing, diagnostic/treatment and support functions organized into clearly defined, mutually supporting zones.

— A series of rectangular blocks organized around a system of mechanical pods.

Two open courtyards provide visual interest and separate the hospital and business areas for operational efficiency.

Jury comment: This project is a skillful solution to several challenges of hospital design. The architecture adapts the color and strength of the desert landscape and becomes one with its context. The organization plan and the way it uses public space, such as naturally lit galleries and atriums, serves as humanizing and way-finding elements.



Merit Award: Military Freefall Wind Tunnel Simulator, Fort Bragg, N.C.



Merit Award: John J. Sparkman Center for Missile Excellence, Redstone Arsenal, Ala.

Students learn in outdoor classroom

By David Longmire
Vicksburg District

Toby Tubby and Hurricane. No, those aren't two delta blues singers; they're two Sardis Lake tributaries that are helping make education fun at Lafayette High School, Miss.

Craig Gordon, high school chemistry teacher and summer ranger for the Corps of Engineers at Sardis Lake, has been busy this year regularly busing his five classes to their "outdoor classroom." It is part of the school's participation in the Adopt-A-Stream monitoring program, sponsored by the Mississippi Wildlife Federation (MWF) and the Mississippi Department of Environmental Quality (MDEQ).

"Mississippi needs more programs that allow students to get hands-on involvement, especially in the sciences," Gordon said. "There's only so much you can accomplish with chalkboard, textbook and in-school labs. This is what's going on in the real world and, in my opinion, it's an excellent tool for education, a 200 percent success. You should be there when the kids get into the stream. You can just feel the excitement."

"This is the first year of our three-year Adopt-A-Stream program," said Bill Latham, a Corps park ranger at Sardis Lake and coordinator of the Adopt-A-Stream program. "When you get the kids out and get them doing something positive for the environment, it's very beneficial and it's brand-new here at Sardis Lake."

Latham went through the Adopt-A-Stream workshop to become the Corps' official monitor at Sardis Lake. Gordon hit upon the idea of combining the program with his high school chemistry classes after Latham made an Adopt-A-Stream presentation to a group of Sardis Lake rangers last summer.

"Involving the students in the Adopt-A-Stream program at Sardis Lake has become a combination community outreach and environmental pro-



Chemistry students at work in their outdoor classroom. (Photo courtesy of Vicksburg District)

ject," said Marla Huffstatler, conservation education director for the MWF. "Student involvement helps develop a sense that the public lands and streams are theirs and it makes them want to keep it clean and protect the environment. We have a number of teachers who are involving their classes in the program state-wide. We feel this is a critical component of the program. If we don't involve the children and create some sense of stewardship in them, then we won't be able to perpetuate the program."

It takes hard work and courage to involve five different classes totaling 112 10th and 12th graders in a project outside of a classroom setting. But Gordon didn't hesitate.

"I couldn't have done this without the support of the school administration and the rest of the faculty," Gordon said. "They have all bent over backwards to make this a success."

They call it Stream Day. It's the one day a week that Gordon buses his five chemistry classes, one per hour, to one of the streams to conduct their monitoring.

The first class boards the bus and takes about 14 minutes to get to the stream. Latham, and usually another Corps ranger, are already at the site. The students know their procedures and get busy either taking water samples or catching bugs.

"We are at the stream for about 20 minutes," Gordon said. "I give them a two-minute warning and they start peeling off the waders. Then we bus back to Lafayette and repeat the procedure for the other classes. It makes for a long day, but what a rewarding day. It's great to be involved in such a positive learning experience. The only thing negative I've heard are comments from students who took my class last year and didn't get to participate in the program."

Gordon is scheduled to attend the Adopt-A-Stream workshop this summer. The three-day workshop teaches adults to become official water monitors. Together, he and Latham have taught Gordon's classes the same basic skills that Adopt-A-Stream monitors learn at the workshop.

"At the workshop we teach you how to survey and map out the watershed area so you become familiar with the entire land area that drains into the stream," Huffstatler said. "You learn to take a physical survey using your senses to assess the stream and surrounding area. You are taught the importance of the six chemical tests we do, how to run those tests, and learn to conduct an invertebrate survey. This is important because, depending on the kinds and numbers of aquatic bugs, you can tell a lot about the health of the stream."

"And the last step is going out and actually monitoring," Huffstatler said. "This includes becoming involved in other aspects of the program such as stream clean-up or even contacting legislators to encourage them to support water quality protection bills."

Retiree climbed from janitor to GS-12

By Rebecca Sallee

Bob Swinea knew he had come full circle when he returned as a contract specialist to the hospital where he used to work as a janitor.

Swinea retired from the Corps of Engineers in April after 44 years of government service, the first 22 spent in the military. A native of Elkton, Tenn., he retired as an Air Force master sergeant in July 1973.

The next spring, he took a job in the hospital at the Air Force Academy in Colorado Springs — as a janitor. He was 42 years old.

"I wanted a job," said Swinea. "I had seen people who didn't have a job lose their houses and everything else."

Swinea remembered the words of a high school principal who had told him any job is better than no job. So Swinea started as a WG-1, the government's lowest blue-collar wage grade.

"That's the bottom, but I knew that it would only be a matter of time before I would get out of that," Swinea said.

Sure enough, six months later Swinea applied for and got a job as a supply clerk. He quickly advanced from GS-2 to GS-5.

"At the Air Force Academy, that's a decent grade," said Swinea, noting that his supervisor was a GS-7.

Meanwhile, Swinea also had started college, attending full-time night classes at Pikes Peak

Community College and working during the day.

When he saw an advertisement for an opening in the contracting department, he applied for the job and got it.

By 1978, Swinea had graduated with a degree in business management and been promoted to GS-7. His biggest goal then was to go home.

"I got homesick and I made a special trip to Redstone to see what it would take to get back here," he said. Huntsville, Ala., home of Redstone Arsenal, is only about 30 miles from Elkton. "I had an obsession; I wanted to come home so bad."

In 1979, he took a contract specialist job at the U.S. Army Missile Command in Redstone as a GS-9. A year later, he joined the Corps of Engineers as a GS-11. He has since been promoted to GS-12.

In 1982, Swinea entered a new phase of contracting. His job was to purchase medical equipment for hospitals throughout the Department of Defense (DoD). He trained in 1988 to oversee purchasing and installation of magnetic resonance imaging (MRI) equipment for DoD hospitals, a \$3-million-per-hospital task.

In 1991, he was assigned to purchase an MRI for the hospital at the Air Force Academy, the same place where he had worked as a janitor at the beginning of his second career. He first returned to the hospital as team leader on a site visit, and was asked to address a group of hospital administrators.

"When I got up to make my little speech, I said,



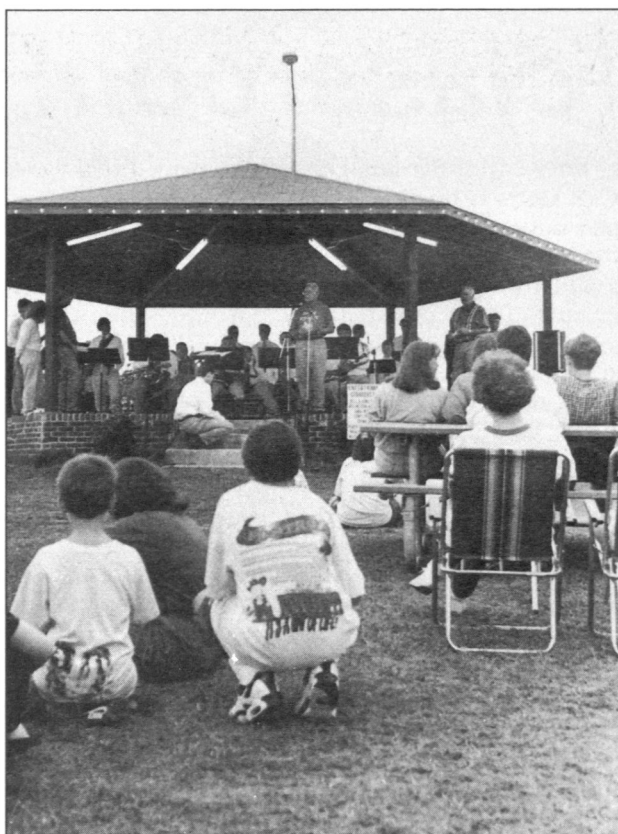
Bob Swinea climbed from being a WG-1 janitor to a GS-12 contract specialist. (Photo courtesy of the Huntsville Engineering and Support Center)

"By the way, I used to work here," Swinea said. "The moral of that story is you should be kind to your janitors because you never know where you are going to get your next MRI."

His advice to job seekers?

"Sacrifice and do whatever it takes to accomplish the job you want to do," Swinea said. "Don't give up. There are no shortcuts to success."

(Rebecca Sallee writes for "The Huntsville Times." Reprinted by permission.)



The gazebo serves as a speakers platform as well as entertainment stage at activities on the banks of the Tenn-Tom Waterway. (Photo by Kelly Stegall, Aberdeen Examiner. Reprinted with permission)

Grand Gazebo dedicated

By David Mallery
Mobile District

At a dedication ceremony held recently at Aberdeen Lake on the Tennessee-Tombigbee Waterway, the Corps of Engineers accepted the first partnered donation under the new Challenge Cost-Sharing Program. The donation was a 35-foot gazebo built on the banks of the Tenn-Tom at Blue Bluff Recreation Area by the City of Aberdeen, Miss., and local volunteers.

The "Grand Gazebo," as it is called, will provide the focal point for numerous activities and festivals in the area. Development of the gazebo was coordinated by organizers of the Blue Bluff River Festival. With an initial contribution of \$8,000 by Chemdal Corp., other donations were solicited by the local volunteers to secure funding for the \$15,000 open-sided structure.

ER 1130-2-426, issued in February 1995, provides guidelines for the Challenge Cost-Sharing Program authorized by the Water Resources Development Act of 1992. Previously, any single donation was limited in value to \$5,000. The new regulation effectively removes the lid on such donations, as long as real estate is not involved.

The new emphasis on partnering allows groups, organizations and individuals to participate in managing water resource projects through dona-

tions of services or goods. Measurement criteria for consideration under the program focus on supplementing Corps programs without a corresponding increase in future operation and maintenance costs. If additional costs are incurred, the benefits must outweigh the costs (such as by increases in revenue).

According to the program guidelines, cost-sharing agreements may focus on "identification, protection, improvement, rehabilitation, preservation, management or interpretation of natural resources, environmental features, recreation areas and facilities or cultural resources."

As the first Challenge Cost-Sharing Partnership in the nation, the gazebo will add only about \$400 in annual operation and maintenance costs, while bringing in more than \$1,000 each year in additional user fees.

"The Corps is thrilled to be in partnership with the Blue Bluff River Festival and the City of Aberdeen," said Janalie Graham, Assistant Resource Manager. "We look forward to further projects of this kind."

Festival planners and city officials are planning to build a large courtesy boat dock at the site as part of the same agreement.

(David Mallery is a park ranger with the Tenn-Tom Project Management Office.)

Norfolk man preserves historic buildings

By Amy Goebelbecker
Norfolk District

James R. Melchor would swear he's just doing his job when he protects historic property on government land. "We are the stewards of Army property," he says.

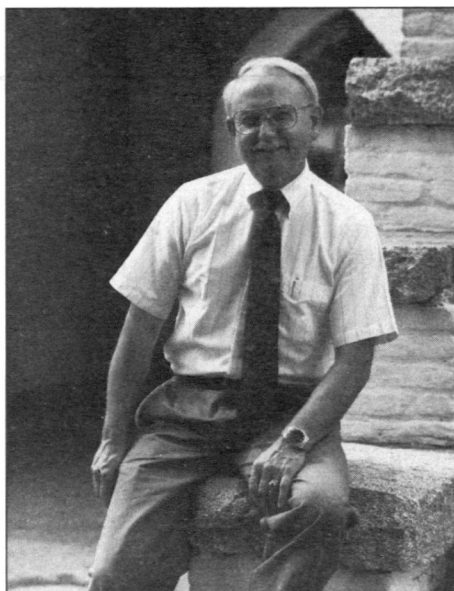
Melchor is Chief of the Environmental Analysis Branch of Planning Division in Norfolk District. He has been an oceanographer with the Corps for 23 years, but he also loves history.

"I grew up in eastern Virginia and I was always dragged to historical sites such as Colonial Williamsburg," he remembers.

Melchor was also involved in the Corps' work at Jamestown Island, the first permanent settlement in America. The Corps first built a seawall to protect the island in 1894. But this did not stop the erosion; an extension was added in 1895 and another in 1900.

The wall was repaired again in 1971. In 1985, the seawall needed more extensive work and the Association for the Preservation of Virginia Antiquities (APVA) asked the Corps to repair it. Using emergency funds, the Corps responded to the request with Melchor as its project manager.

The seawall protects a 17th century church tower, a graveyard, a statue of John Smith and the foundations of the first state house. Recently, another site has revealed artifacts of the first settlers. Archeologists aren't sure of the significance, but Melchor is sure these artifacts exist due to the hard work of Norfolk District. He and the archeologists believe they may have uncovered part of Virginia's first fort, built



(Left) James Melchor poses at Fort Norfolk, a historic site he has helped preserve. (Right) An aerial view of Fort Norfolk. (Photos courtesy of Norfolk District)



in 1607. According to Melchor, it's possible there are sites containing more artifacts of early American history on the island.

Melchor was also the project manager of the Matthew Jones House preservation. Built about 1720 on the northwest bank of Mulberry Island at Fort Eustis, Va., the Matthew Jones House represents three periods in architectural history. Because the house is on Army property, Melchor has worked hard to preserve it as a symbol of our past. It is now an architectural museum.

It's fitting that Melchor has a panoramic scene of Fort Norfolk from his fourth-floor office. He has been the fort's caretaker and defender while working for the Corps. The fort, built around 1810, is the best preserved fort of the War of 1812.

Melchor fought for the fort when

the idea of tearing down its buildings was proposed. He even found a legacy grant to preserve 19th century graffiti in one of the structures. In the past, Melchor was a tour guide for visiting dignitaries. Under a licensing agreement, that task has been expanded and turned over to the Norfolk Historical Society.

Most of Fort Norfolk's buildings are intact. More than just a historical fort, it has been Norfolk District's home since 1923. Melchor is not only preserving American history, he is also guarding one of the Corps of Engineers' homes.

In Melchor's spare time, he and his wife Marilyn work with people who restore buildings. Marilyn Melchor is an architectural historian consultant for Williamsburg. The Melchors draw, photograph and study historic buildings that are

going to be demolished or are decaying. Melchor feels that their work helps avoid a slanted view of American history by providing future generations with a variety of historical architecture to study, not just the upper-class lifestyle Williamsburg settlers enjoyed.

Marilyn and Jim Melchor collaborated with another researcher on a book, *The Eastern Shore of Virginia's Raised Panel Furniture, 1730-1830*. The book was published in 1982 by the Chrysler Museum of Art in Norfolk.

Both Melchors advise several historical and preservation boards, including the Colonial Williamsburg Foundation, the College of William and Mary, and the Virginia Department of Historic Resources.

"This is what I do at the Corps of Engineers, and what I do on weekends," Melchor said. "I love it."

Around the Corps

Affirmative action winner

Oscar Eason, special assistant to Seattle District's Engineering Division, was number one in the affirmative action category of the 10th annual Black Engineer of the Year Awards. More than 250 of the nation's outstanding Black scientists, engineers and technology leaders were nominated in eight different categories.

Eason has spearheaded affirmative action efforts in the federal government and private and public sectors across the nation. In 1989, he gave young men an alternative to crime, unemployment and illiteracy through the Black Male Youth Decline Intervention program.

In 1994, Eason was elected national president of Blacks in Government. Last year he participated in hearings on affirmative action which produced a report to the White House and Congress, *Affirmative Action and Beyond*.

Eason also helped launch a major effort to provide food, medicine, materials and money to Somalia.

He received his award in March at the Black Engineers of the Year Conference awards banquet in Baltimore, Md.

Ice passage

When Rock Island District needed help in dealing with ice passage at their locks and dams, they contacted the Ice Engineering Division (IED) of the Cold Regions Research and Engineering Laboratory (CRREL). With a physical model study, IED personnel have been working to improve ice passage at the Starved Rock and Dresden Island locks and dams.

The purpose of the study is to optimize a submergible gate design for ice passage. In colder regions, ice accumulation in the approach areas of navigation locks is a problem. Ice pushed into locks ahead of tows reduces the efficiency of the lock and slows down barge traffic. Gate icing is another serious problem that will be addressed under the study.

Within the Ice Engineering Facility at CRREL is an 80x100-foot research area that can be maintained at -10 degrees for large-scale refrigerated hydraulic models. Last fall, a 1:25 scale model of a navigation lock was built in the research area. In November, CRREL and Rock Island personnel met at the Starved Rock and Dresden sites to discuss important issues to be addressed in the study.

Both plastic ice and real ice are used in the model. Ice passage is examined for a range of gate design alternatives and flow discharges. The study will also look at the use of bubbler screens to divert ice from the lock approach area, and at water jets to direct ice from the navigation channel to the submergible ice gate.

Corps number one

Every two years, *Graduating Engineer* magazine polls graduate and postgraduate engineering students and asks for their perceptions of the best employers in various engineering fields.

A total of 574 students replied to a survey published in the magazine's March and September 1995 issues. They ranked the Corps of Engineers as their "dream employer" in the civil engineering field. The Corps placed first in the same category in the magazine's 1993 survey.

The Corps also tied for first place (with Camp Dresser & McKee) in the environmental engineering field. Overall, the Corps placed 16th among favored places to be employed.

Volunteers lend helping hand

By Tracy Deal
Nashville District

When visitors drive into a Corps-managed area, they may expect to be met by a ranger in uniform. But, instead, they often meet one or more of the 72,000 volunteers at Corps projects nationwide.

Corps volunteers vary greatly background and lifestyle, but most share the same traits, a willingness to give their time and do a good job. Volunteers are out in force at Corps projects, greeting the public, performing interpretive services, working with computers, writing and editing publications and even running project volunteer programs.

All these things are done with an attitude that is appreciated by Corps employees and visitors alike.

One such volunteer couple is Henk Parson and his wife, Georgia. Their service began at retirement. After a hectic life as business people, they "bought a comfortable motorhome, loaded the few belongings we needed and our two cats, disposed of our 'fixed' dwelling and overflow of possessions, and cast about for activities to keep us busy," said Parson.

Last year the Parsons volunteered at Lake Lanier in Mobile District, arriving there after a season of presenting water safety programs to school children in the Fort Meyers, Fla., area. This year, they are scheduled for volunteer work at the Summer Olympic Games. In the past four years the Parsons have worked as tour guides at a historic site, campground hosts in the California desert, and guardians of artifacts for the Bureau of Land Management.

For the Parsons, volunteering is a lifestyle that offers personal returns equal to the contributions they make.

"At last count, we will have shared the water safety message with more than 4,000 elementary

DART

The Corps of Engineers' pioneering efforts in alternate dispute resolution (ADR) continues to have positive effects throughout the construction industry.

Industry leaders met April 15 in Washington, D.C. to endorse the "Declaration of Principles for the Prevention and Resolution of Disputes." The declaration inaugurates a new "standard of behavior" by encouraging the construction industry to use collaborative procedures such as ADR and partnering to avoid and resolve conflicts arising in construction projects.

Maj. Gen. Pat Stevens, Deputy Chief of Engineers, signed the declaration for the Corps.

Industry leaders, including Steve

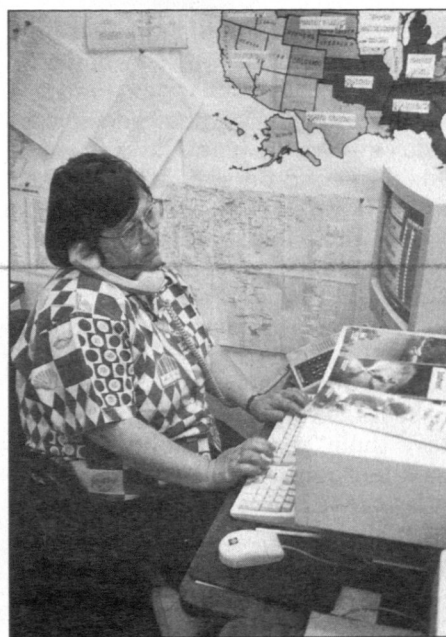
Kelman, administrator of the Office of Federal Procurement Policy, acknowledged the Corps' leadership in moving the industry to accept this new way of doing business.

The declaration principles were developed by the Dispute Avoidance and Resolution Task Force, an industry-wide coalition to promote the understanding and use of dispute prevention and resolution instead of litigation.

Corrections

Jim Phillips works for the Real Estate Division of Mobile District, not Savannah District as reported in the April issue of *Engineer Update*.

Mary Beth Hudson was the author of "Volunteering keeps casual hero on toes" in the April issue.



Gayla Mitchell talks to a volunteer. (Photo courtesy of Nashville District)

grade school children," Parson said. "Can you imagine the satisfaction we derive from knowing that, sometime in the future, our partnership with the Corps will save a life?"

Henk, a naturalized American citizen, came to this country from the Netherlands and grabbed hold of opportunity.

"Volunteering for the assignments we choose gives us a chance to repay my adoptive country in a small way for the great opportunities it has afforded me over the years," Parson said. "We hope many will follow in our footsteps."

There are many more like the Parsons. Just ask Gayla Mitchell, who talks with people like them every day. Mitchell manages the Corps of Engineers' Volunteer Clearinghouse. Based in Nashville District headquarters, Mitchell has been coordinating national volunteer efforts since the hotline first began taking calls in January 1994.

One might imagine the Volunteer

Clearinghouse as a vast warehouse of desks with people working furiously, computers blinking, fax machines purring and phones ringing. Some of that scenario is true, except there's no staff. Mitchell is the sole problem-solver, the lone matchmaker, the amiable connection between volunteers and the people who need them.

She will be the first to tell you how much she loves playing a part in the lives of people like the Parsons. "I think of some of these people as my friends," Mitchell says about hotline callers. "Sometimes they tell me their problems; sometimes I give them advice. But sometimes I just have to say, 'That's for another 1-800 number.'"

Mitchell may not solve personal dilemmas, but when it comes to volunteering with the Corps, she has all the answers. Many Corps projects have already filled upcoming volunteer positions for the spring and summer seasons thanks to the Volunteer Clearinghouse. "If the projects send me information about their jobs to mail to callers, I can find volunteers for them," said Mitchell.

Volunteers come from all walks of life. Mitchell has been keeping count and says she has spoken with potential volunteers from every state in the union, not to mention taking calls from England and Bulgaria. The spirit of volunteerism is not limited by geography, nor by age. The ages of hotline callers have ranged from 14 to 91.

What is typical of the people who give their time to the Corps is the dedication and caring they bring to their work. The continuing efforts of volunteers, volunteer coordinators, and Mitchell at the Volunteer Clearinghouse will be providing opportunities for people like the Parsons for years to come.

Training film features odd-looking boats

By Christina Plunkett
Jacksonville District

Airboats look weird — a flat hull carrying a powerful engine and aircraft propeller, with vertical stabilizers. But this odd cross between an airplane and a boat is perfectly adapted to shallow swamps. Its flat bottom, air-drive and tight turn radius let an airboat maneuver where conventional vee-hulls and outboards cannot go.

These airboats are popular in swampy regions, especially Florida. But, like all boats, they require skill to handle safely and can be dangerous if misused.

To reduce the chance of accidents, airboat experts from the U.S. Fish and Wildlife Service (USF&W) and the Corps of Engineers recently joined forces to film an airboat training video on the St. Johns River in Florida. According to the Library of Congress, this is the first professionally-made airboat training film.

Its originator, Ken Cooper, safety manager for the USF&W Southeastern Region, made the video with the help of Jacksonville District's airboat expert, Eddie Knight.

Cooper hooked up with Knight, the main technical advisor, while researching airboats and searching for operators who know their stuff. Many of Florida's leading airboat manufacturers pointed to Knight. The Panther Airboat Manufacturing Co. even created a buyers' brochure about 10 years ago based on Knight's maintenance and operating notes.

With 20 years as the Aquatic Plant Control Operations Supervisor for the district's field unit in Palatka, and 30 years' experience in airboats, Knight and airboats are synonymous in Florida.

"Knight is *the* expert in maintaining and operating airboats," Cooper said. "That's why he played a significant role in this video."

Because Cooper and Knight wanted to include all aspects of airboat operations, other technical advisors were needed. Pat Hughes, a fireman with the Orlando Fire Department, contributed to the video's rescue, sports and recreation viewpoint, and James McNulty, USF&W's Northwest Regional Safety Manager, provided records on airboat accidents.

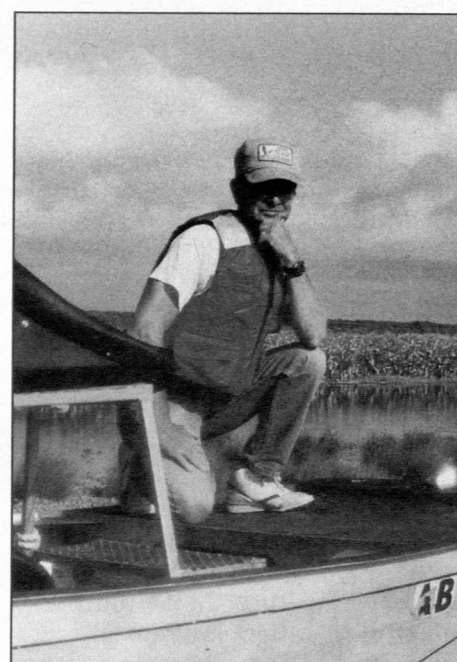
With this group providing input, Cooper and Knight wrote the script. The final script has five sections — airboat design, maintenance, proper trailering or towing, correct operation, and safety.

Marketing and Training Video Productions in Atlanta, Ga., did the filming. The crew went to remote Paw Paw Mound on the St. Johns River near Titusville, Fla., where, except for a few channels, the river is so shallow that it can be navigated only by airboat.

They packed a lot of action into a week of filming. Knight showed how to avoid a barbed-wire fence by



(Left) An airboat roars past during filming. (Right) Eddie Knight of Jacksonville District is considered *the* expert in airboat operations. (Photos courtesy of Jacksonville District)



doing a 180-degree turn. He then drove the airboat like a car over the top of a levee.

The other agencies showed how airboats aid their work. A biologist from the Florida Department of Natural Resources showed viewers a day's work in plant life research. Bill Kline and his son, Mitch, talked about how airboats are made and how to find one to suit the operator's needs. There's even a fire scene where the Florida Park Service uses airboats while performing weed control by burning off marshes.

"This video shows the necessity of airboats," Knight said. "If we didn't have them, we'd still be in the dark ages in aquatic plant control. Without access, through airboats, to

chemically treat water hyacinth, St. Johns River would be unnavigable, just as it was back in 1968."

Knight stressed the importance airboats play in the district's work and in helping other agencies. Knight and his crew have aided every section in the district, from Geotechnical Branch with core drilling samples to Survey Section in the Everglades.

They help other Corps districts and divisions, and state and federal agencies and universities. They provide on-going support to the University of Florida with noxious aquatic plant research. The district has also created a training program for new airboat operators in the Department of the Interior.

All this experience came in handy while filming. The eight hours of shooting were edited down to one, and voiceovers, wildlife sounds, music and graphics were added.

"The one section we didn't want to recreate was the accident section," said Cooper. Graphic experts illustrated common airboat accidents, like swamping the airboat by stopping improperly. Other problems operators must deal with are loose objects getting sucked into engines and propellers flying off. To avoid accidents, operating an airboat involves preventive maintenance, learning proper techniques and practicing them.

"Eddie and I felt having a training video to establish safe operating habits was long overdue," Cooper said.

You're *not* always covered on TDY

By Page Dupstadt
HQUSACE

Many federal employees believe that if they are injured while on temporary duty (TDY), the provisions of the Federal Employees Compensation Act (FECA) would apply.

In fact, employees are covered 24 hours a day while on TDY, *as long as their activities at the time of injury are duty-related*. In the past few years, a number of Corps employees injured on TDY have been denied FECA benefits because of this sensible, but little known, exception.

The FECA provides benefits to employees who sustain an illness or injury on duty. FECA benefits include 45 calendar days of continuation of pay (salary continuation without charge to leave), payment of medical expenses, and monthly compensation (wage loss) payments to those who cannot return to work after continuation of pay expires.

The FECA also provides survivor benefits to spouses and eligible dependents when an employee's death results from an occupational illness

or injury.

Whether a person is performing duty when injured while on TDY is critical to allowing FECA benefits.

Activities which are "reasonably incidental" to the TDY are covered. Eating, sleeping and personal hygiene are examples of such incidental activities. Therefore, a person who slips in a motel shower or who is burned spilling hot coffee while eating breakfast at a restaurant would likely be covered.

Injuries from a rental car accident while on TDY would be judged as reasonably incidental so long as the vehicle was being used for business purposes (between airport and lodging or between lodging and TDY duty site).

Recreational activities after normal working hours are generally *not* judged reasonably incidental to the TDY trip and are excluded from FECA coverage.

One disallowed case involved a person on TDY who was injured on the dance floor of a nightclub.

Another case was rejected for an employee who died from injuries sustained in an all-terrain vehicle

(ATV) accident. In that case, the employee (who was TDY at a remote, isolated site), was riding the ATV at 9 p.m. for recreation only.

A third rejected case concerned a person who tripped on an escalator in a metropolitan transportation facility. This employee was enroute to visit a relative.

In all of these cases, benefits were denied because the activities the employees were engaged in deviated from the purpose of the TDY. Rather, they were viewed as exclusively personal activities.

In summary, if you're on TDY and thinking of trying bungee-jumping, jet-skiing, snow-mobiling, limbo dancing, attending a concert, driving to visit a nearby relative or friend, shopping, jogging, swimming or bike riding — if you are injured while doing them, you are as personally responsible for costs related to those injuries as if you were injured off-duty back home.

(Page Dupstadt manages the Civilian Resource Conservation Program in the Safety and Occupational Health Office at HQUSACE.)